The objective of this study is to investigate whether observed increases in gonorrhea among men is due to more screening, increased prevalence of disease, or a combination of both these factors.

METHODS

- Gonorrhea testing patterns were assessed with electronic medical record data from 3 clinical practices using the Electronic Medical Record Support for Public Health surveillance platform (ESR, esphealth.org)
- Males ≥15 years with at least one encounter from 2010-2017 were included in analyses
- Outcomes assessed annually from 2010-2017 included:
  - Percentage of men tested for gonorrhea
  - Percentage of men tested for gonorrhea with a positive result
  - Prevalence of laboratory-confirmed gonorrhea
- Log-binomial regression models were used to examine linear changes in outcomes, expressed as risk ratios (RR) with 95% confidence intervals (CI) comparing each year to the previous year
- Covariates of interest included: age, race/ethnicity, HIV status, PrEP use; gonorrhea symptoms; diagnosis of high risk sexual behavior
- Generalized estimating equation methods were used to account for within-person correlation induced by repeated gonorrhea tests or positive tests from 2010-2017

RESULTS

**Figure 1.** Observed percentage of men tested for gonorrhea, percentage of men tested with a positive result, and prevalence of laboratory-confirmed gonorrhea, 2010-2017

**Table 1.** Characteristics of men with at least one encounter, men with at least one gonorrhea test, and men with at least one positive gonorrhea test, 2010-2017

**Figure 2.** Prevalence of gonorrhea symptoms among men tested for gonorrhea and men with a positive gonorrhea test, 2010-2017

**Figure 3.** Estimated associations between calendar year and gonorrhea testing, calendar year and positivity, and calendar year and prevalence of laboratory-confirmed gonorrhea, 2010-2017

CONCLUSIONS

- Significant increases were observed in the percentage of men tested for gonorrhea, the percentage of men tested with a positive result, and the prevalence of laboratory-confirmed gonorrhea
- Percentage of men who had symptoms at the time of their gonorrhea test decreased slightly, indicating that there may have been a small increase in asymptomatic screening of men during this time period
- Results suggest that the observed increases in gonorrhea cases among men in Massachusetts are a result of increased testing and increased prevalence of disease